

ABSTRACT

A reference volume tube (10) which is a bi-directional prover having a prover pipe (12) provided with two detectors (14a, 14b), and tube sections (16a, 16b) provided at the opposite ends. At each position of the tube sections (16a, 16b) closer to the detector (14a, 14b), waiting means (18a, 18b) consisting of gates (20a, 20b) and hydraulic cylinders (22a, 22b) are provided. When a sphere (24) is positioned at the tube section (16b), a gate (20b) of the waiting means (18b) provided between the sphere (24) and the detector (14b) projects into the tube section (16b). Consequently, the sphere (24) moved from the tube section (16b) toward the detector (14b) is stopped by the waiting means (18b) until the flow velocity of a fluid reaches a specified value and prevented from moving in the direction to the detector (14b), and the sphere (24) waits at that position.